Sales information

SAC

Marts 2006

SAC-Saccomatic milking parlour automation

- Modular structure
- Removal
- Milk measuring
- Conductivity measuring
- Cow identification
- Operation of the entrance and exit gates
- Operation of the backing gate

SAC-Saccomatic is the most flexible system available on the market for management in modern milking parlours. With SAC-Saccomatic it is possible to start with automation which fits the farmer best at this moment and which can be extended step by step later on, depending on the wishes of the farmer and without making the investments already made unnecessary.

SAC-Saccomatic milking parlour keyboard

The SAC Saccomatic keyboard is easy to use.
With one keyboard it is possible to control two milking places. This will create more working space for the milker. If one keyboard per milking place is used, both the cow number and the milk yield can be checked during the milking turn.

The SAC-Saccomatic keyboard can be installed in several ways. The versions below can be installed both ‘stand-alone’ and with cow identification.

SAC-Saccomatic versions:

- Pulsation and removal control, milk measuring
- Pulsation and removal control, milk measuring and conductivity measuring

SAC-Saccomatic milking parlour keyboard

The SAC-Saccomatic keyboard is equipped with a large LCD-display, where all information regarding the individual cow can be retrieved.

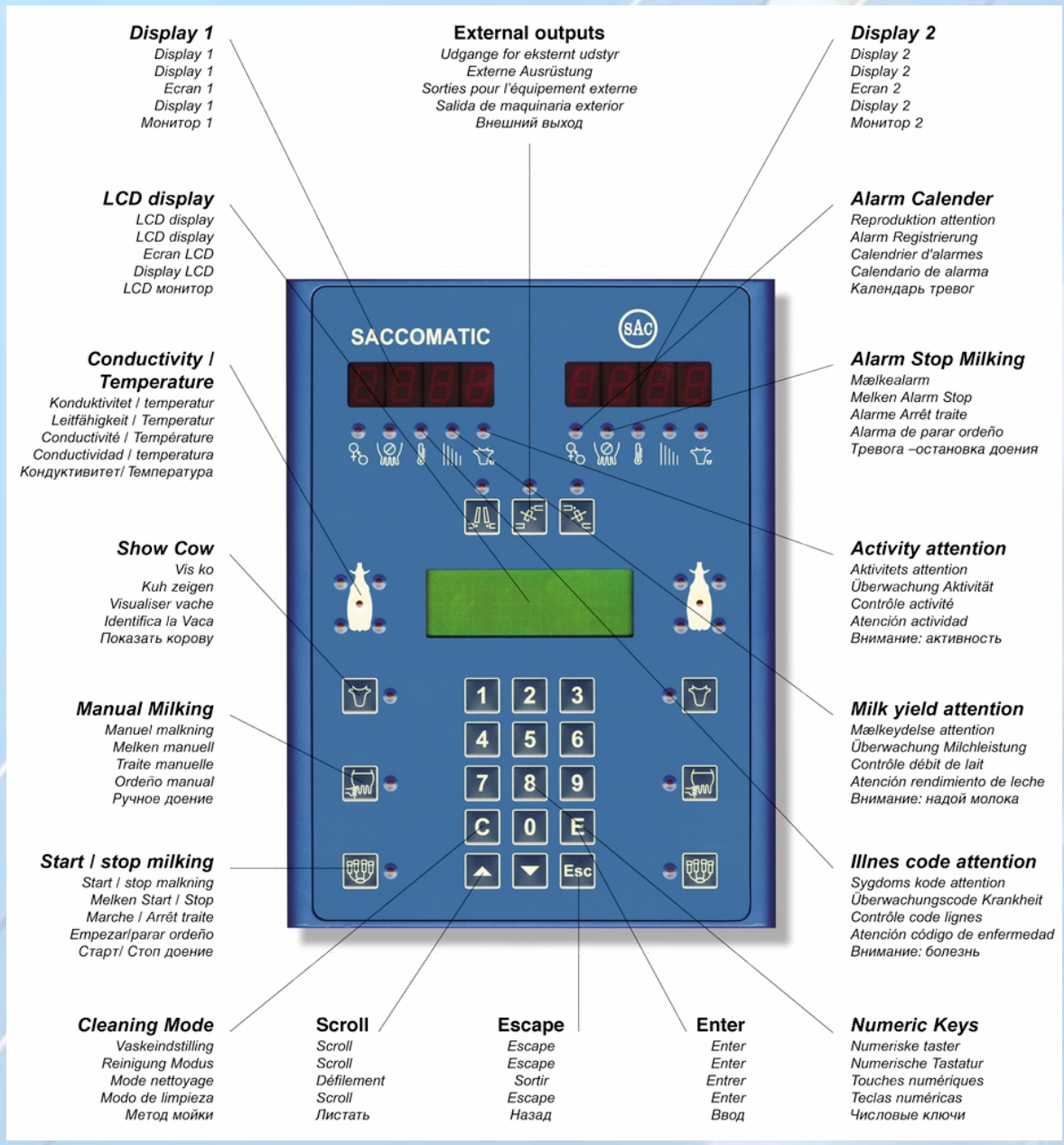
The farmer himself can program which information must be displayed and in which order. This information can be divided in four groups:

Milking
- Expected milk yield of the cow in question
- Current milking speed
- Conductivity during the milking
- Alarm for deviating conductivity
- Number of milking turns to separate
- Average milking speed

Feeding
- Programmed feed quantity and leftovers
- In barn max. 4 feed types
- In milk parlors max.1 feed type
- In rotor parlors 2 feedtypes

Cow calendar
- Lactation days
- Last calving date
- Last heat date
- Last insemination date
- Expected calving date
- Expected dry off date
- Activity deviation in %
- Illness code 1
- Illness code 2
- Alarm ‘second heat’
- Alarm ‘first control after insemination’
- Alarm ‘dry off’
- Alarm ‘dried off’
- Possibility for separation after milking

SAC-Saccomatic milking parlour keyboard

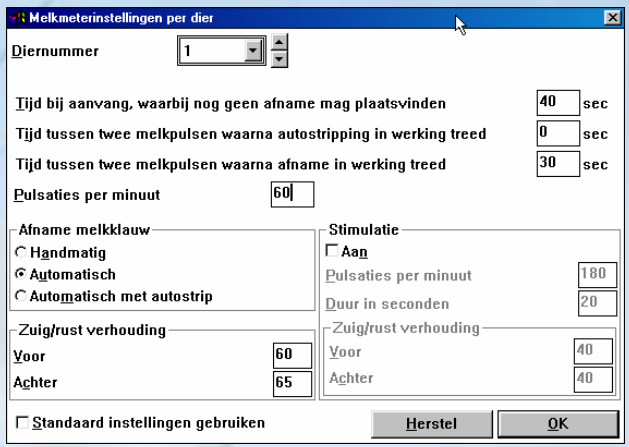


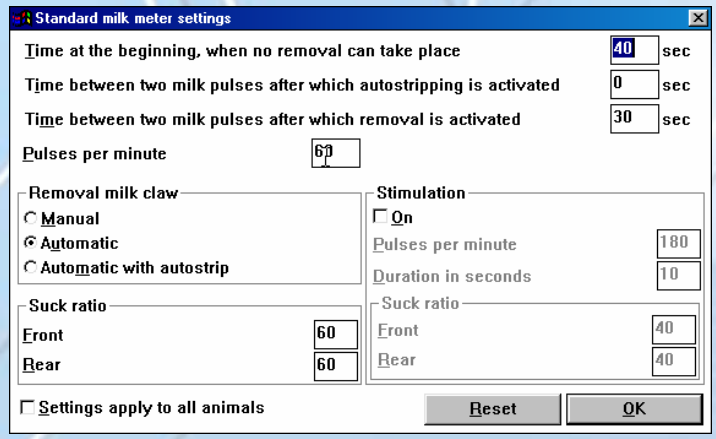
SAC-Saccomatic milking parlour keyboard

Settings
Displayed when connected to a PC.

- Interim period
- Removal time
- Pulsations
- Pulsation ratio
- Pulsation ratio during stimulation phase
- Duration stimulation phase

The user determines whether he wants to retrieve above mentioned information. The display always shows four lines. By pushing the arrow keys, one can leaf through the information.



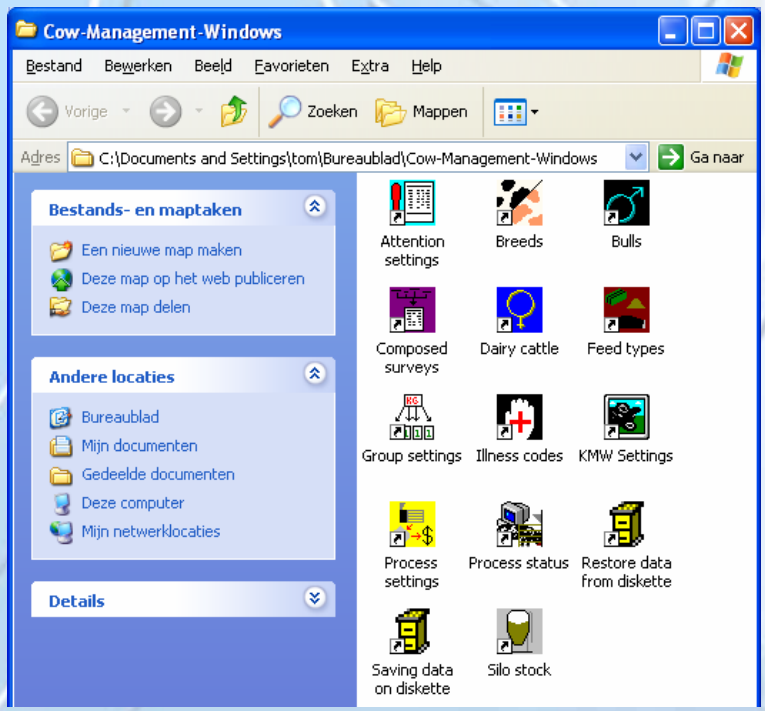


In case the SAC-Saccomatic keyboard is combined with animal identification and a PC, it is possible to use settings per animal. With this option each animal will be milked according to the optimal settings. At this moment SAC-Saccomatic is the only system available with this option.

(for more information see ‘Users manual Saccomatic’

SAC-'Cow Management Windows' (KMW)

- **Icons with name of the programs**
- **Clear program structure**
- **Software with all relevant details**
- **Cow calendar**
- **Milk yield**
- **Illness reports**
- **Feeding programs**
- **Graphs**



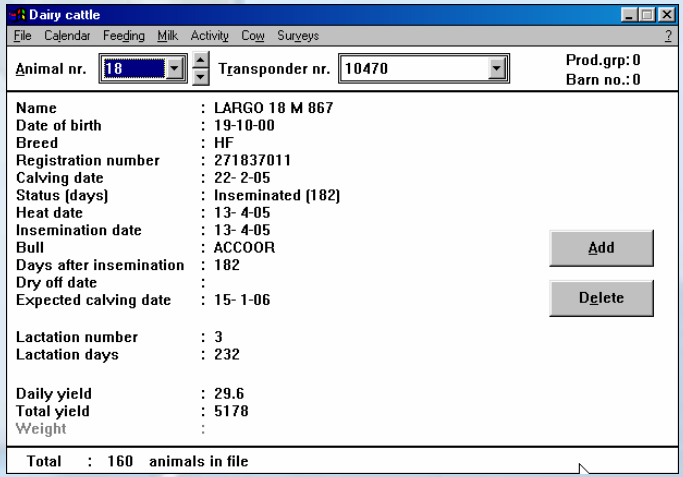
SAC-Cow Management Windows' is divided in several programs.

Programs can be opened separately and data can be entered in the different modules.

Every program has its own icon, with which the program can be activated..

Dairy cattle

This module is the heart of the management software. A lot of the available information can be viewed in this program and cow numbers and all cow calendar data can be entered here.



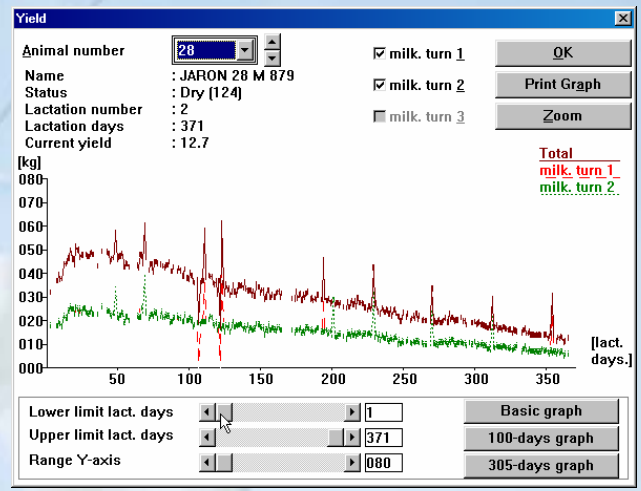
SAC-'Cow Management Windows' (KMW)

In the menu of the program 'Dairy cattle' you will find the cow calendar.
This cow calendar is structured in such a way that the current status of the animal is emphasized. This simplifies the use and makes it clear.

Most data of an individual animal are displayed in the user interface of the program 'Dairy cattle'.

Milk yield
In the menu 'Milk' you will find the program containing all data with regard to the individual milking turns. Details about milking turns like place and time of the milking turn, conductivity and milking speed. The data are saved twice a day during the whole lactation period.

Besides milking data can be displayed in several graphs. Here a period can be selected, just like displaying the single or daily totals.



Illness codes
In this program several illness codes can be entered, which can be used in the management program later on.

When using animal identification, the illness codes will be displayed at the milking places as a warning for the milker.

SAC-'Cow Management Windows' (KMW)

Breeds
In this program the different breeds can be entered.

Attention settings
All settings for print layout and calendar data can be changed by means of this program.

Group programming
This program is used when a lot of cows have the same feeding pattern, e.g. in case of grazing or when the feed quantity of a group of cows must be changed at the same time.

Bulls
In this program a list can be composed of all bulls on the farm.

Feeding
In the menu 'Feeding' you will find the program to program specific quantities of concentrate for individual animals. This can take place in the feeding stations and/or in the milking parlour. The quantity of programmed feed can be increased or decreased, depending on the circumstances. There is also a possibility to assign a quantity of feed calculated by the PC. For this the currentl milk yield is used as starting-point..

Daily a leftovers report is generated, which can be printed. For each animal mentioned on this list is indicated to what extent the feed intake is deviating.

Feed types
Different feed types can be saved and used in the feeding program.

Silo stock
When a new feed delivery has taken place, this can be entered here. During the daily feed intake by the herd, the program will calculate the current silo stock.

SAC-'Cow Management Windows' (KMW)

Status
This program is directly linked to the feeding system. You can continuously observe which cows are visiting the different feeding stations.

Save data
With this option data from the management system can be saved on e.g. a disk. It is advised to save after each change of data.

Restore data
This program is used to restore data that have been saved for use in the management system.

Process settings
In this program several functions can be used to change among others the feed reset times, to calibrate feeding stations, to change date and time and to reset the process computer.

CMW-settings
The basic system settings are programmed here. The program is secured with a password and can only be used by service personnel.

Graphs
Data can be selected and displayed in a graph. In this way heat and illness detection can take place with a lot of certainty.

Composed surveys
All available data with regard to the cows and production can be selected and displayed by the farmer. Selections will be saved and can be carried out by hand or automatically later on and results are printed.

(for more information see 'Users manual Cow Management Window)

SAC-Saccomatic Milk meter

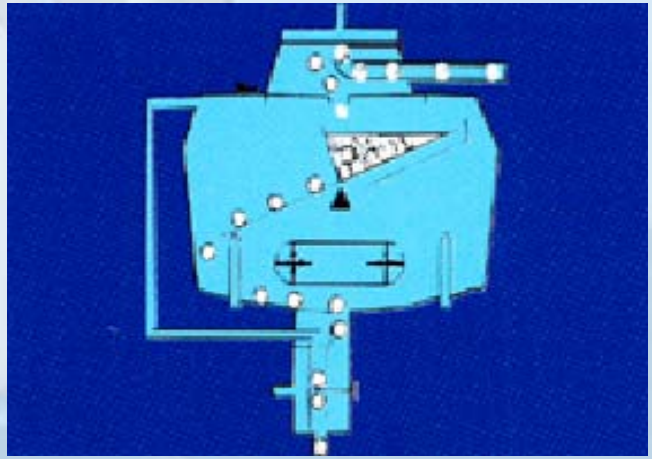
The SAC-Saccomatic milk meter has ICAR-approval up to a milking speed of 15 litres per minute, while the standard for other milk meters is 12 litres per minute.

The milk meter is small and compact, as a result of which the discomfort of the milk meter in the milking parlour during milking is minimal.
The unique cleaning method guarantees an effective cleaning of the milk meter with a low water consumption.

The milk measuring is based on a very simple principle, where the milk is collected in a tipping scale, each half of which can contain 100 grams of milk. When one half is filled, the scale will tip over and the milk will flow from the meter while the other half is being filled. The portions of milk of 100 grams increase the accuracy and refine the determination of the right removal time.

There are no electronics or electric coils in the milk meter, which guarantees a stable functioning with accuracy and extreme low maintenance cost.

Sampling takes place in a simple, safe way by placing a ‘scale’ and a plastic bottle by means of two screws.



SAC-Saccomatic conductivity measuring

SAC-Saccomatic conductivity measuring can be installed on systems that have been equipped with the SAC-Saccomatic milk measuring, since it is a separate unit.

SAC-Cow identification

TIRIS Antenna for ID
The cow is identified by means of a walk through antenna at the entrance of the milking parlour or an antenna per milking place.

TIRIS neck transponderfor ID
For the cow identification an ISO qualified TIRIS neck transponder is used.

ACTO antenna for ID and activity
The cow is identified by means of a ring antenna at the entrance of the milking parlour.

ACTO leg transponder for ID and activity
For the cow identification and activity an ISO qualified ACTO leg transponder is used.

SAC-Cow selection

Separation box
On large dairy farms to much time is spent on finding and separating cows, that must be dried off, inseminated or treated in any way.

The SAC Cow selection box is controlled from the milking parlour. The separation process is running completely automatic.

Simple action
Entering a simple code on the SAC-Saccomatic milking parlour keyboard will result in automatic separation of the cow in question, immediately after leaving the milking parlour.

SAC-Activity recording

Acitivity recording observes the activity of the cow.
The right time for observing a heat is a continuous problem in dairy farming.

Due to the fact that there is a lot of work on a dairy farm, heat is often not detected or detected too late. This results in a late insemination.

For SAC a reason to introduce a system that is recording the activity of each cow during the day so the dairy farmer can determine the right moment for insemination.

A cow in heat shows an increased activity during a longer or shorter period of time. Sometimes the increased activity only shows at night, which makes it almost impossible for the farmer to notice this. In this case the SAC Activity recording is a big help in observing the activity during the twenty-four hours' period.

SAC-Acto transponder
After calving every cow gets an SAC Acto transponder around the leg. This transponder counts the number of movements of the cow. At every milking turn the data from the Acto transponder are automatically collected after which the information is available on the SAC-Saccomatic milking parlour keyboard and the PC.

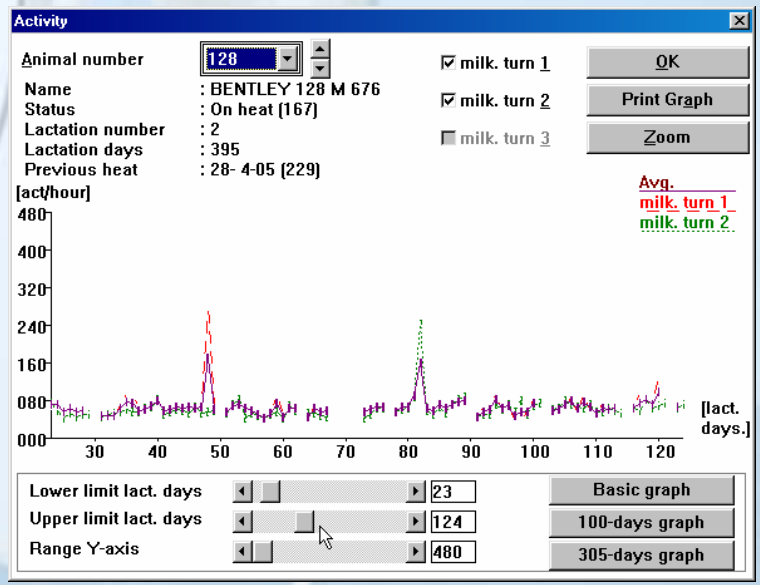
High activity : in heat
Low activity : possibly ill

SAC-Activity recording

Data processing

After each milking turn the number of steps per hour is calculated for every cow and compared to the number of steps in previous periods. When the activity is higher than the average activity, the cow will be mentioned on an attention list. The dairy farmer himself can set the limits for the attention list.

The list is automatically printed after each milking turn, so the dairy farmer can respond to deviating activity data immediately.



SAC-Concentrate feeding system

Basic system:

- **SAC-EcoTec**
- **SAC-EvoTec**

SAC-EcoTec
Complete concentrate feeding system with PortoReader handheld computer.

Maximum of four concentrate stations
Maximum of four feed types

SAC-EvoTec
Complete concentrate feeding system with Feed Control Card and PC.

Can be extended almost unlimited with concentrate stations.
Maximum of four feed types.

Both feeding systems are based on feeding according to a periodical system. The feeding is divided in a number of periods. Leftovers can be consumed in the remaining time till the feed reset.

(For more information see the sales information ‘EcoTec and EvoTec.)

SAC-Saccomatic-Configurations

SACCOMATIC and SAC Management System.

Complete system, standard
1 SACCOMATIC keyboard per 2 places
SAC milk meter pr. place
Antennas and ID-transponders (neck)
FCC connection to PC

Ad on:
1 SACCOMATIC keyboard per place
Conductivity and temperature
Activity (only leg transponders)
Feeding in milk parlour (max. 1 feed type)
Feeding in carrousel (max. 2 feed types)
Feeding in barn (max. 4 feed type)
Cow separation (1 sep. + 2 groups),
- By 2 exits from parlour 2 boxes are possible

Start up with less than a complete system.
It is possible to upgrade to a complete system

Stand-alone milk meter
Without PC+FCC, antennas and transponders.
Milk meter is always needed.
Ad on:
Conductivity and temperature

Feeding
Milk meter and SACCOMATIC is not needed
Information's are only on PC
- Carrousel - Max. 2 feed types
- Milk parlour - Max. 1 feed type (feed 1 in barn)
- Barn - Max. 4 feed types
Ad on:
Activity (choose leg transponders)
Cow separation (1 sep. + 1 group)

Seperation
Milk meter and SACCOMATIC is not needed
Information's are only on PC
Cow separation (1 sep. + 2 groups),
- by 2 exits from parlour 2 boxes is possible
Ad on:
Activity (only leg transponders)

Rebuild a UNICO2 installation to SACCCOMATIC.
Rebuild UNICO2 to UNICOM

SAC-Saccomatic-Configurations

Type	Complete system	Milk meter Standalone	Feed in parlour	Feed in barn	Seperation
PC controller connection	X	-	X	X	X
Transponders and ID	X	-	X	X	X
Controlling 2 milking places	X	X	-	-	-
Individual cow settings	X	-	X	X	X
Attentions on keyboard	X	-	-	-	-
No of animals	2600	-	2600	2600	2600
No of stable groups	9	-	9	9	9
No of production groups	99	-	99	99	99
Milking	X	X	-	-	-
Milk meter	X	X	-	-	-
No of milking places	60	60	-	-	-
Pulsation and take off.	X	X	-	-	-
Stimulation	X	X	-	-	-
Milk separation	X	X	-	-	-
Cow calendar	X	-	X	X	X
Reproduction	X	-	X	X	X
Feeding	X	-	X	X	-
No of feed types	4	-	Milk parlour max 1 Rotor max. 2	4	-
Feeding in milk parlour	X	-	X	X	-
Feed- and drink stations 1 feed st = 1 con. / 1 drinks st. = 2 con.	Max. 32 connect.	-	-	Max 32 connect.	-
Health	X	X	X	X	X
Cow separation 1 sep. + 1 group	X	-	X	X	X
Conductivity (4 quarters)	X	X	-	-	-
Temperature (1 quarter)	X	X	-	-	-
Activity	X	-	X	?	X
Weighing	X	-	X	X	X
Connections	X	-	-	-	-
Clean / milk mode from 1 keyboard	X	-	-	-	-
In- and exit gates	X	-	-	-	-
Wash unit	X	-	-	-	-
Crowd gate	X	-	-	-	-